



**APPLICATION FOR AUTHORITY TO CONSTRUCT
AIR POLLUTION CONTROL PROGRAM**

INSTRUCTIONS

Revised August 17, 2000~~May 1, 2000~~ |

Overview

To protect the quality of Missouri's air, a business which emits air pollution may be required to obtain a permit before construction of a new air pollution source, or modification or reconstruction of an existing source. The Air Pollution Control Program (APCP) of the Department of Natural Resources administers the permits program in accordance with state and federal laws and regulations. There are two primary missions of construction permit review. The APCP wants to be sure that a proposed project will comply with Missouri's air pollution regulations and that it won't cause an air quality problem.

To make these determinations and to issue permits, the APCP needs information about the proposed installation, including a description of all the equipment and/or processes emitting air pollutants, any air pollution control systems, and the kind and amounts of pollutants. Also, a detailed description of the business' property and location of the emitting equipment or processes must be provided. This information is important because it helps the permit reviewer determine if a proposed project could cause a violation of federal air quality standards, the *National Ambient Air Quality Standards*.

The required information is submitted by filing an Application for Authority to Construct (application) with associated forms and worksheets to the APCP. **Two complete copies of the application must be provided.** The Technical Assistance Program (TAP) can provide assistance in completing the application forms, but TAP does not review applications nor make permit applicability determinations. For information or assistance to complete the application, call TAP toll-free, 1-800-361-4827 or 1-573-526-6627. You may contact the APCP Construction Permit Unit by calling 1-573-751-4817.

The Air Pollution Control Regulations implementing state statute are found in the *Code of State Regulations (CSR)*. You may obtain a copy of the air pollution control regulations by calling the Secretary of State, 1-573-751-4015, and asking for Title 10, Division 10 of the CSR (10 CSR 10). The cost is currently \$25, and includes four quarterly updates. The rules are also available on the Internet at <http://mosl.sos.state.mo.us/csr/10csr.htm>.

The construction permit regulation, 10 CSR 10-6.060, describes several applicant categories with differing information and operational requirements. An applicability table has been included on page 26 of these instructions to help you understand what section applies to you, and what is required as part of your application. Additional aids are provided in the Supplemental Information Package, and it is strongly recommended that you review this before you complete your application.

For large projects at large installations Sections 7, 8, and 9 of the rule apply. These are commonly called major reviews and typically have the most requirements. These requirements include a public hearing, pre- and post-construction air monitoring, rigorous air quality analysis, an analysis of secondary impacts, as well as a determination of appropriate air pollution controls. This means it will take longer to get a permit, and the review fees will be higher. The APCP

recommends that anyone who believes their application will be subject to major review under sections 7, 8, or 9 have a pre-application meeting with the Permits Unit to discuss what will be required to conduct the review of their proposed project. Both the applicant and the APCP benefit by discussing potential obstacles before the application is written and by establishing what will be needed to conduct the application review.

Section 6 reviews are commonly called minor reviews. There are many fewer requirements for these sources, primarily an analysis of air quality impact, and a review to be sure that the proposed project complies with air pollution regulations. Section 5 reviews are commonly called *de minimis* reviews. For these projects the APCP again assures that the proposed project complies with air pollution regulations, and conducts an air quality analysis under certain circumstances. Section 4 reviews apply to portable equipment and provide faster review for these types of operations. Section 3 of the permit rule applies to sources that are temporary or pilot plants.

No permit is required for installations that have the potential to emit less than the *de minimis* amounts as established by regulation. A table of these amounts is shown on page 2. In addition, there are some exemptions from permitting that may apply to you. Again, please refer to the Supplemental Information Package (Page 14) for a list of projects that have previously been determined to not require a permit.

Even though you may not need a permit, some businesses like the APCP do formal permit determinations. Permit determination requests should include a complete process description, including maximum hourly production rates, estimated emission rates, and other necessary information. The construction permit forms can be used for this purpose. If you believe that a permit is required you should prepare and submit a complete permit application. \$100 must accompany permit applications. You will also be billed \$50 per hour of engineering review time. If it is found that a permit is not required, the application fees will not be refunded, but you will be charged no review fees.

The air law allows 184 days for review of Section 7, 8, or 9 projects, and 90 days for review of Section 5 or 6 projects. These time frames do not include time where the permit reviewer is waiting to receive additional information from an applicant. An early, well prepared, and complete application helps the permit reviewer do his job, and gets you the best and fastest result. In our experience, permitting problems typically arise from communication breakdowns. This package was developed to minimize these breakdowns as much as possible. The instructions and materials provided were developed to help both applicants and reviewers efficiently exchange the information. It is in your best interest to simply follow the instructions and be complete.

In addition to administering a construction permit program, the APCP also administers an operating permit program. For information or assistance with an operating permit application, call TAP toll-free, 1-800-361-4827 or 1-573-526-6627. You may contact the APCP by calling 1-573-751-4817.

Please read the following instructions before beginning your application. There are forms in the

package that may not apply to your operation. Complete only those forms that apply to your proposed construction project.

DO NOT RETURN UNUSED FORMS WITH THE APPLICATION.

TWO COPIES OF THE APPLICATION AND A \$100 FILING FEE MUST BE SUBMITTED WITH EACH APPLICATION

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1. Do I need a construction permit?

- Construction Permits – Applicability 10 CSR 10-6.060(1)
- Permit Determinations
- Preconstruction waiver
- Operating Permits

Construction Permits

Does your business have paint and other coating application booths, storage tanks, printing lines, boilers, dust collectors, plating operations, degreasers, batch processes, processes that create dust, or any process or process control equipment that may emit air pollution? If so, your facility may need a construction permit.

The answer to the question “**Do I need a construction permit?**” is found in Missouri’s air pollution regulations:

Paraphrasing – “*No owner or operator shall commence construction or modification of any installation subject to this rule...without first obtaining a permit. This rule shall apply to installations throughout Missouri with the potential to emit any pollutant in an amount equal to or greater than the de minimis levels.*” [10 CSR 10-6.060(1)]

To understand these statements you need to be clear on a few definitions in the permitting context:

Construction – Fabricating, erecting, reconstructing, or installing a source operation. Construction shall include installation of building supports and foundations, laying of underground pipe work, building of permanent storage structures, and other construction activities related to the source operation.

Modification – Any physical change, or change in method of operation of, a source operation or attendant air pollution control equipment which would cause an increase in potential emissions of any air pollutant emitted by the source operation.

Potential to emit – The emission rates of any pollutant at maximum design capacity. Annual potential shall be based on maximum annual-rated capacity of the installation assuming continuous year-round operation. Federally enforceable permit conditions on the type of materials combusted or processed, operating rates, hours of operation or the application of air pollution control equipment shall be used in determining the annual potential. Secondary emissions do not count in determining annual potential.

De Minimis – Any emission level less than or equal to the rates listed in the following table:

<u>Air Contaminant</u>	<u>Emission Rate</u> (tons per year)
Carbon Monoxide	100.0
Nitrogen dioxide	40.0
Particulate Matter (PM) ***	25.0
Particulate Matter less than 10 microns (PM ₁₀)	15.0
Sulfur dioxide	40.0
Ozone (to be measured as VOC)	40.0
Lead	0.6
Mercury	0.1
Beryllium	0.0004
Asbestos	0.007
Fluorides	3.0
Sulfur acid mist	7.0
Vinyl chloride	1.0
Hydrogen sulfide	10.0
Total reduced sulfur (including hydrogen sulfide)	10.0
Reduced Sulfur Compounds (including hydrogen sulfide)	10.0
Municipal waste combustor organics (measured as tetra-through octa-chlorinated dibenzo- p-dioxins and dibenzofurans)	3.5×10^{-6}
Municipal waste combustor metals (measured as particulate matter)	15.0
Municipal waste combustor acid gases (measured as sulfur dioxide and hydrogen chloride)	40.0
Municipal solid waste landfill emissions (measured as nonmethane organic compounds)	50.0
Hazardous Air Pollutant (each)	10.0
Sum of Hazardous Air Pollutants	25.0

*** Particulate Matter (PM) is no longer evaluated in construction permitting. Instead particulate air pollution is evaluated as PM₁₀.

All incinerators and asphaltic concrete plants are required to obtain a construction permit.

However, not everything that emits an air contaminant needs a permit. **The construction permit regulation provides for a number of exemptions. Please refer to 10 CSR 10-6.060(1)(D), (E), and (F).** To assist you, a list of projects that the APCP has previously determined to be exempt is included in the Supplemental Information Package (page 14).

Permit Determinations

Some business like to confirm that a proposed project does not require a construction permit, and write to the APCP asking for a written determination on the issue. These requests are assigned to the permit reviewers, and are handled as time allows. Priority is given to formal applications.

Often additional information is needed to make the proper determination, and the business may be asked to complete the appropriate forms.

To avoid the possible delay and the need to respond to requests for additional information, you may simply apply for a permit. If the APCP determines that a permit is not required for your proposed project, you will not be charged review fees (the \$100 application fee is non-refundable). If a permit is required for the project, then your application will be already in the process of being reviewed.

Preconstruction Waiver

To expedite your construction project the permit regulation provides for a preconstruction waiver. The waiver allows you to begin construction (not operation) of your project prior to receiving your construction permit, but the applicant undertakes this at his/her own risk. Preconstruction waivers are not available to businesses that have already begun construction, or for applications that are subject to major review under sections 7, 8, or 9 of the construction permit regulation. Details on obtaining a waiver are included in the Supplemental Information Package (page 12).

Also, existing sources of air contaminants installed before May 13, 1982, are not required to get a construction permit, unless equipment or production processes are being modified. However, these “**grandfathered**” sources are still subject to EIQ reporting requirements.

Operating Permit Program

The scope of this instruction package is limited to construction permits. However, installations that need construction permits (and those that have existing construction permits) are subject to Missouri’s operating permit regulation. For information about operating permits you should contact either the Operating Permit Unit (573) 751-4817 or the Technical Assistance Program (800) 361-4827.

2. Are there exemptions from construction permits?

- Regulatory Exemptions
- Projects Previously Determined to be Exempt

Regulatory Exemptions

The regulations (10 CSR 10-6.060(1)(D), (E), and (F)) exempt a number of projects from construction permits. These exemptions are based on an assumption that these classes of projects have little or no potential to adversely impact air resources. **Do not rely on rule headings to identify an exempt source; instead read the entire rule before making a decision.** If a source is exempt, there is no need to notify APCP about the source, and no permit conditions will apply.

The APCP does not maintain any listing of installed exempt sources, although these processes may be subject to inspection. Note, however, that a source is still subject to other state and federal regulations, even if it is exempt from construction permitting.

Examples of the broad categories where certain specific exemptions may be found are:

- LPG or Natural Gas combustion equipment with a capacity of less than 10 million BTUs per hour,
- Any combustion equipment with a capacity of less than 1 million BTUs per hour,
- Office and commercial space heaters with a capacity of less than 20 million BTUs per hour,
- Transportation Equipment,
- Residential wood heaters or cookstoves,
- Laboratory equipment,
- Sewer gas stacks,
- Routine maintenance (such as replacing elements of control equipment, boiler tubes, etc.), and
- Replacement or rebuilding of like-kind emission units.

Again, the regulations must be read carefully to determine if a source really falls under an exemption category. APCP staff can assist you in an interpretation of the regulations. **It is better to assume you may need a permit until you can prove otherwise.** If you determine that a source is exempt, keep a written record of how you arrive at that decision. This will be handy if/when you are inspected. If an inspector questions your judgement about an exemption, the situation will be referred to the construction permit unit. Air pollution inspectors do not make formal permit determinations; this is reserved for the construction permit unit. If you would like the APCP to review your determination, you can send a request with all of the appropriate information. These determinations are given less priority than formal applications, but they are processed within 30 days under most circumstances. Many businesses choose to submit a formal application. This requires a filing fee of \$100, but if it is determined that no permit is required, then you will not be charged a review fee. If it is determined that a permit is required, your application is already on track for engineering review.

Projects Previously Determined to be Exempt

To help businesses determine if a project might be exempt, a list of projects previously determined to be exempt was included in your Supplemental Information Package (page 14). It should only take a few minutes for you to review the list. Each item on the list is tied to a specific exemption in the regulation.

3. What happens if a required permit is not procured?

- Civil Penalties

Civil Penalties

This guide is intended to help applicants understand the mechanics of obtaining a construction permit for a proposed new source or for changes at existing sources. If you already have installed equipment or a process and you need a permit; this guide still can be used to provide the required information and suggestions to proceed to get a permit.

If you did not obtain a permit required under the regulation, you will be issued a Notice of Violation. The APCP in conjunction with the Missouri Air Conservation Commission and the Missouri Attorney General's office has the authority to pursue an administrative penalty. The Missouri Air Law establishes a maximum penalty of \$10,000 for each violation, and if the violation continues, \$10,000 for each day the violation continues. Settlement offers seldom begin in this range, and **consideration is given for "self-reporting."**

The degree of penalty may be tempered by the:

- Size of the business
- Economic impact of the penalty on the business
- Violator's compliance history and good faith efforts to comply
- Duration of the violation
- Previous penalties for the same violation
- Economic benefit of noncompliance
- Seriousness of the violation

If you did not obtain a construction permit prior to constructing, part of the enforcement action will be for you to obtain the required permit.

4. What kinds of permits are there?

- Construction Permit
- Operating Permit
- Other Environmental Permits

A construction permit is required prior to installation, construction, or modification of a source that may emit air contaminants unless an exemption is provided for a specific activity. In addition to a construction permit, you may be required to get a permit to operate. The Department of Natural Resources may also require additional permits not related to air pollution. Again, the Technical Assistance Program (800) 361-4827 is a good place to get information about your other permitting requirements.

Construction Permit

Before you begin construction you will need a construction permit. The construction permit is for new processes or process equipment and modifications of existing equipment that result in a change in emissions. The construction permit has general and special conditions that must be met in order for a facility to be in compliance. A construction permit does not require renewal; it is issued for the life of the installation or process permitted. A new construction permit will be issued if there is a significant change in a process or process equipment.

There are four areas of the state that have local air pollution agencies. If your business is located in one of these you will need to obtain a permit from them. A state issued permit is not required in these counties.

St. Louis City:

City of St. Louis
Division of Air Pollution Control
1415 North 13th Street
St. Louis, MO 63106-4424
(314) 613-7306

St. Louis County:

St. Louis County Department of Health
Air Pollution Control
111 South Meramec
Clayton, MO 63105
(314) 615-8923

City of Kansas City:

Kansas City Department of Health
Air Quality Control Program
2400 Troost Ave, Suite 3000
Kansas City, MO 64108
(816) 513-6314

Greene County:

Springfield Greene County Health Department
Air Pollution Control Authority

227 East Chestnut Expressway
Springfield, MO 65802
(417) 864-1162

Each year, the Missouri Air Pollution Control Program processes more than 800 construction permit projects. Review includes a technical review by the Construction Permit Unit engineers, a site survey by inspectors located in regional offices around the state, and executive review. After internal processing is completed, the Air Pollution Control Program drafts the construction permit. The permit contains stipulations and conditions necessary to insure that the proposed source will comply with all applicable state and federal regulations in effect at the time the permit is issued, and will operate in an environmentally safe and acceptable manner. Construction permits often include voluntary emission limitations 1.) to possibly avoid review under more stringent sections of the construction permit rule, 2.) to ensure that air quality standards are not violated, 3.) to keep their operating permit review as simple as possible, and 4.) to limit their reporting requirements under the Emissions Inventory Questionnaire (EIQ) program. All limits must be enforceable in a practical manner, and even voluntary limits will require some degree of recordkeeping.

Operating Permit

Many sources that obtain a construction permit will be required to obtain an operating permit. The construction permit rule allows you to file for **“unified review.”** This simply means that you can submit your operating and construction permit applications at the same time. If you choose not to submit your application as a unified review, then you have specific deadlines under which you must file your operating permit application.

Operating permits are issued for a term of five years. Operating permits are installation-wide permits rather than permits for individual emission units. If your facility requires an operating permit the terms and conditions of your construction permit will be incorporated into the operating permit. The operating permit is primarily an enforcement tool that documents all of an installation’s requirements for compliance.

The operating permit will require a different application form. These can be obtained from the Operating Permit Unit (573) 751-4817, or the Technical Assistance Program (800) 361-4827.

Other Environmental Permits

The Missouri Department of Natural Resources has several programs that are given the responsibility of managing Missouri’s resources. Several of these programs have permitting or other regulatory requirements. While you are preparing your construction permit for air pollution, we recommend that you review your obligations in these other areas. Again, the Technical Assistance Program or your regional office inspectors can assist you with this task.

Your facility may require a National Pollutant Discharge Elimination System (NPDES) permit from the Department of Natural Resources' Water Pollution Control Program for any possible discharges from this site or modifications to an existing permit. For assistance concerning a

permit of this nature, contact your Regional Office. Your facility may require a permit from the Public Drinking Water Program. You may contact them directly at (573) 751-5331. All wastes processed, treated, stored, or disposed of by your facility shall be handled according to all applicable solid waste laws and regulations. The department's Solid Waste Management Program may be contacted at (573) 751-5401 to help you in determining applicable requirements.

Also, all wastes processed, treated, stored, or disposed of by this facility shall be handled according to all applicable hazardous waste laws and regulations. The department's Hazardous Waste Management Program may be contacted at (573) 751-3176 to help you in determining applicable requirements.

5. What factors influence permit requirements?

- Emissions
- Applicability
- Attainment and nonattainment areas / major reviews
- Hazardous Air Pollutants

Factors that influence permit requirements can be very complex. The discussion that follows is intended as a basic introduction to the many requirements that may or may not apply to your situation. This section is not intended to provide definitive answers to permit requirement questions, but to present background information for an understanding of the issues involved in the permit process.

Emissions

There are several items to consider when making a determination on the type of permit and review needed for a particular project. One of the most basic is your existing emissions, and those of your proposed project. Review of your application begins with a good emissions inventory. An emission inventory starts with identifying the chemicals, elements, or particles that will be released from the given source or process. The better job you do of this, the less review time will be required by the agency.

Steps for preparing a good inventory are:

- Make an inventory of raw materials to be used in the process.
- Outline the physical, chemical, or biological changes that will occur to those raw materials.
- Determine which by-products will be produced as a result of the process that have the potential to be emitted to the atmosphere.
- Combine this information to determine the type of emissions to be released from the source.
- From the list of materials emitted to the atmosphere, determine which will be subject to regulation. Are any criteria pollutants emitted? Hazardous air pollutants?

Once the expected emissions have been identified, the next step is to quantify them. Air quality regulations are based on emissions expressed in various units such as pounds per hour, tons per year, pounds per Btu, pounds per gallon, or pounds per pound of exhaust gas. Emissions are quantified based on one or a combination of several factors. These include sampling, emission factors, equipment data, Material Safety Data Sheets, and the mass balance approach. Your equipment or materials vendor may be able to help.

Applicability

There are several levels of construction permit review under different sections of the regulation, requiring more of the applicant as you move from level to level. Table 1 (page 26) can be used to determine what section your permit will be reviewed under. Different sections have different requirements and timeframes for review.

Attainment and Nonattainment Areas / Major Reviews

The Clean Air Act authorized the establishment of primary and secondary National Ambient Air Quality Standards. Primary standards are designed to protect human health. Secondary standards protect the public welfare. Different regulations may apply if a source is located in a nonattainment area versus an attainment area for the federal air quality standards. The location of your proposed project and its attainment status affects the applicable regulations, the way construction permits are reviewed, and the emission limits that are set for a source. Key elements of construction permits for major sources in nonattainment areas include installation of the most stringent control technology (Lowest Achievable Emission Rate or LAER) and the designation of offsets for any residual emissions attributable to the project. LAER is defined as the most stringent emission standard in any State Implementation Plan (SIP) or the lowest emissions achieved by any source in the same category.

Many areas of the nation currently satisfy existing air quality standards and are classified as attainment areas. To protect these areas, special rules were established to prevent population and industrial growth from causing a significant deterioration of air quality (Prevention of Significant Deterioration or PSD). Certain large projects in Missouri (again, see the applicability table, page 26) which are located in attainment areas are reviewed under section 8. These rules apply to major stationary sources in one of 28 listed categories that emit, or have the potential to emit, 100 tons per year or more of any regulated pollutant; or stationary sources that emit, or have the potential to emit, 250 tons per year or more of any regulated pollutant. If section 8 applies you must show that you have used Best Available Control Technology (BACT) to reduce emissions. A detailed air quality analysis of the ambient impacts is also required, as well as pre- and post-construction air monitoring.

Hazardous Air Pollutants

The Clean Air Act also called for the establishment of National Emission Standards for Hazardous Air Pollutants (NESHAPs). This area of regulation calls for the development of NESHAPs to reduce the emissions of 189 specific hazardous air pollutants from various source categories. These hazardous air pollutants include many common industrial solvents. A list of NESHAPs is given in the Supplemental Information Package (page 50). The regulations developed for these common sources define the Maximum Achievable Control Technology (MACT) standards for each type of source. MACT levels can be different for existing and new sources. If your project has the potential to emit more than 10 tons per year of any single hazardous air pollutant or 25 tons per year of any combination of hazardous air pollutants and no MACT regulation exists for your project, then you will be subject to section 9 of the construction permit rule. This section requires a case-by-case MACT determination.

Small businesses that may be affected by the hazardous air pollutant provisions include dry cleaners, gasoline stations, printers, auto body repair shops, metal finishers, solvent degreasing operations, surface coating and painting operations, among others.

Projects that emit smaller amounts of hazardous air pollutants may be subject to an air quality analysis to insure that public health is protected. **In summary, it may be a good strategy to avoid being classified as a major source of hazardous air pollutants in the first place and reduce or eliminate the use of toxic chemicals.** Basic changes and pollution prevention measures can help achieve this goal.

6. What is involved in applying for a construction permit, and how long can it take?

- Preliminary meeting
- Application Package
- Supporting Information
- Using a consultant
- Timeframes

Preliminary Meeting

Although not necessary, the Construction Permit Unit staff can be contacted prior to preparing the construction permit application. Such a meeting can be especially valuable for a company that has not had recent experience in applying for a construction permit. It is also strongly recommended if you believe that your project will be subject to major review. A meeting can help you to better understand the application review procedures and can be used to discuss design considerations. This would include such considerations as whether the proposed project is compatible with the local environment, where the source will be located, and what impacts (e.g., odors) the source might have on neighboring properties. Certain large sources may have to conduct ambient air monitoring at their proposed location for one full year before even submitting their application.

Application Package

One construction permit application is submitted for a number of individual emission units or processes at the same installation. For example, a construction permit application may cover several paint booths or a complete painting line, or a chemical reactor and a boiler.

The forms provided in this package are required as part of your application, but it should not be limited to just forms. A complete application will include all appropriate supporting information, such as Material Safety Data Sheets, relevant stack test results, vendor information, and process descriptions. Review of the application will be slowed by an incomplete application. Two copies of all materials should be submitted in the application package.

On page 30 you will find a checklist of forms that can be submitted with each application. Following that is a list of worksheets that apply to specific situations.

Supporting Information

When submitting the application, be sure to include the appropriate supporting information that will give the permit reviewer a clear idea of the process or equipment, and the nature of the emissions. This will help make the reviewer's job easier, and quicker.

Examples of supporting information include:

- Regulatory Discussion (why, certain regulations apply, or not),
- Air Impact Analysis (report),
- Emissions information (previous stack tests, vendor information),
- Discussion of Control Technology (justification for control efficiencies, contact the Construction Permit Unit for Specifics on BACT analyses),
- Site Information (leases showing you have property use rights, points of interest), and
- Formulations (MSDS sheets, vendor information).

Using a Consultant

Some companies find it useful to employ a consultant to prepare permit applications. While this may save you some effort, the best advice is to prepare to be involved. All consultants will need your help to complete the application. Many of the best applications (and hence easiest and quickest to review) are carefully prepared by the companies themselves, who take the time to work their way through the application process. Consultants can advocate on your behalf and many feel that the best service provided by a consultant is just to provide a better understanding of the process, a level of comfort that things are being done correctly.

Timeframes

Simple construction permit applications for facilities that have experience in preparation of construction permit applications could take less than a month to prepare. More realistically, allow one to three months to gather the information and perform the calculations needed to complete the application. More complex applications may take from three to six months or even more. **The key is to plan ahead so that the need to obtain a construction permit does not interfere with your construction schedule.**

De minimis and minor applications have a statutory deadline for review of 90 days. This does not include days while the review engineer is waiting for you to provide additional information. Major reviews have a statutory review deadline of 184 days. All attempts are made to move these projects through as fast as possible. You should understand, however, that your project gets in line with all the rest. Sometimes the workload is heavy, and it takes most of the 90 or 184 days. Frequently, we process them somewhat quicker than that. For scheduling purposes you should plan for it to take most of the allotted time, and be pleased when you get it earlier than you thought.

7. What expenses are associated with applying for a construction permit?

- Application preparation costs
- Application and review fees
- Emissions testing / recordkeeping costs
- Emissions fees

Application Preparation Costs

One of the costs associated with obtaining a construction permit is your internal cost of preparing the application. Application preparation costs are dependent upon the complexity of the project and whether your business has in-house permitting expertise. Minimum costs involve man-hours for determining whether a permit is needed, preparing the application materials, completing the forms, and discussing permit conditions with the permit review engineer. Consultants can be hired to prepare the application.

Application and Review Fees

A non-refundable application fee of \$100 must be submitted with each application. You will also be billed for agency review time at \$50 per hour. The fees for individual projects vary considerably. Some relatively simple projects may take only a few hours. Very complicated projects can require 200 hours of review or even more. If a reviewer spends 20 hours reviewing your project, you can expect a letter notifying you of that fact. You will also be notified for every additional 20 hours spent reviewing your application.

If an application is denied, or if there are conditions placed on the project that your business cannot live with, you are still required to pay the \$50 per hour review fee. The \$50 per hour charges apply to projects that you withdraw from review as well.

Emissions Testing / Recordkeeping Costs

Once you receive a permit you may have additional costs. When a condition is placed in a permit, there are usually associated recordkeeping requirements. Maintenance of these records will be a condition of your permit and therefore become a permanent operating expense.

For some projects a condition of your permit will be to conduct performance testing or emissions verification. You will be given a deadline to complete this testing after construction. This testing is a cost that is sometimes overlooked.

Emissions Fees

The Missouri emission fee program is tied to the Emission Inventory Questionnaire system, and not the construction permitting program. Most sources that are required to obtain construction permits will be required to pay emission fees. A key element of the fee program is the collection of actual emission information. You will be required to submit an Emissions Inventory Questionnaire (EIQ) by March 31 of each year (some businesses are only required to submit a complete EIQ every five years but must pay annual fees).

Your emission fees are based directly on your actual emissions for the year. Currently the fee is \$25.70 for each ton of pollutant emitted for the year. This fee can and probably will change in the future. The Missouri Air Law requires that the emission fees be established by the Missouri Air Conservation Commission every year. For information on emissions fees and the EIQ please contact the EIQ unit at (573) 751-4817.

8. What happens after I submit a construction permit application?

- Logging in
- Engineering review
- Executive review

Construction permitting applications are received at the Air Program Offices (Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102). The application enters the program in the following manner:

Logging in

- The application is first routed to the Managing Assistant. The Managing Assistant logs the project into our permit action tracking database system.
- The Construction Permit Unit Chief assigns the project to a review engineer (who may be a contractor).
- The application and tracking sheet is then passed to the clerical staff. The clerical staff creates and mails a letter to the applicant confirming that we received the application and informing them of the project number (**Please refer to this number when inquiring about project status**) and the name of the review engineer.
- The clerk will then insert all of the project documents, including all of the appropriate internal review forms, into a folder. This folder is then forwarded to the review engineer assigned to the project.

Engineering Review

Permit review engineers normally have 10-20 permit applications in their office at one time. The engineer will be your primary contact during the review process. There are a series of responsibilities that fall on the review engineer, as follows:

- The first step is a check to make sure that the application is administratively complete.
- Once complete, the project enters the technical review phase.
- The review engineer sends a site survey to staff in the regional office. This is intended to give the review engineer a better perspective on the proposed project and to bring the project to the attention of the regional office.
- The time spent working on a review must be recorded by the review engineer for later billing. This includes time spent in pre-application meetings, phone conversations, meetings, necessary plant tours, review of reference and guidance documents, as well as time spent drafting the permit.
- The permit action tracking system is used to track permit progress for management purposes. Review engineers are required to update this system, until it enters executive review.
- Technical review ends with the final drafting of the permit. Review engineers use a word-processing template to create the draft in an effort to be consistent. This particularly applies to document form and permit condition wording.
- The last step of technical review is a peer review, conducted by another engineer for the

purpose of quality assurance.

Executive Review

Once technical review is complete, the project enters the executive review phase. Executive review can be divided as follows:

- Executive review starts with formatting and printing by the clerical staff.
- The folder is then reviewed up the management chain, from Unit Chief, through Section Chief, to Program Director.
- Once signed by management, the applicant is sent a bill for review time (\$50/hour). Upon receipt of payment, the permit is mailed to the applicant, and construction can begin.

9. How does a construction permit get issued?

On the basis of the information in the application and federal and state rules, the permit review engineer will develop a draft permit containing specific conditions. This draft permit will be sent to you for review. Draft permits contain conditions which are reasonably necessary to assure compliance with air quality regulations or environmental concerns. Permit conditions are by necessity enforceable. You should carefully review all permit conditions to determine if limits on emissions, or on control equipment or general operation are feasible and can be met.

All permits will have general conditions that are typically not negotiable. These conditions should also be read carefully, and you should ask questions about any conditions you don't understand. Special conditions are also likely to be included in your permit. These special conditions are unique to your application. Special conditions contain: emission rate limitations, visible emission limitations, requirements for use of air pollution control equipment, emission testing, monitoring, recordkeeping, reporting requirements, among others.

Again, it is important that you take the opportunity to comment on the draft permit. The permit must comply with the regulations, but it should also be workable for you.

Some construction permits require public participation. This only applies to major reviews, and your permit review engineer will inform you about this process.

Some applications are denied. The primary reason for denial is either the proposed equipment will not comply with regulations or that the application is incomplete and the applicant is not responding to requests for additional information.

Once your permit is completed and signed you will be sent a bill for the associated review fees. Upon receipt of payment, the agency will mail your permit.

10. How long does it take?

- Variables in processing an application
- Preconstruction waiver

Variables in processing an application

Many factors influence how long it may take for a construction permit to be issued, including:

- Existing permit workload,
- Completeness of the application,
- Quality / Organization of the application,
- Timeliness of response by the applicant to requests for additional information,
- Degree of complexity,
- Hours of review necessary,
- Category of review (*De minimis*, minor, major),
- Necessity of an air quality analysis,
- Location of a source (attainment / nonattainment / neighbors)

It is possible for simple, noncontroversial construction permits to be issued in one to two months. More complex projects have taken as long as one year. Your review engineer should be able to give you a sense of how long your project will take. Your best strategy is to submit a complete and organized application as early as possible and respond quickly to any information requests.

Preconstruction waiver

The construction permit regulation provides for a waiver to construct prior to receiving a construction permit. However, a waiver does not insure that a permit will be issued and the applicant proceeds with construction at his own risk.

The request for a preconstruction waiver needs to:

- Be in writing,
- Acknowledge that the project will not be "major" (will not be subject to section (7), (8) or (9) of 10 CSR 10-6.060). Potential emissions (without voluntary, limiting conditions) in application must demonstrate non-major rates (*de minimis* for major-modification, major levels for construction),
- State that construction has not begun,
- State that you accept all liability associated with a possible denial of the application,
- Include a proposed schedule of construction activities, and
- Include a complete construction permit application.

Please refer to page 12 of the Supplemental Information Package for the details of obtaining a preconstruction waiver.

11. What happens if the process, equipment, or operation needs to be changed?

During the life of your equipment, it is likely that changes may need to be made in operations, equipment replaced or relocated, processes modified, or different raw materials used. These changes can impact on the emissions allowed by a permit and the ability to comply with the existing permit. Several scenarios are possible depending on the type of change. You may:

- Amend your existing permit,
- Require a new construction permit, or
- Be exempt from permit review.

The best course of action if you are facing this type of question is to write a letter to the Construction Permit Unit explaining the changes. For changes that are essentially “paperwork” changes, your permit will likely be amended. If the changes have an impact on your emissions you will likely be required to obtain a permit, unless the changes are exempt. Many applicants choose to submit a formal construction permit application when faced with this question. If a permit is required, the project moves forward. If not, the agency is under a statutory deadline to make that determination.

The STEPS

Many applicants find it easiest to just jump right in and begin filling out the forms. This approach is fine, but the following outline is intended to assist you. It is intentionally brief, and reduces the process to a series of steps. Very often the individual steps are relatively large tasks in and of themselves. If while working your way through these steps you find yourself stuck, a couple of options are recommended. The first option is to call the Technical Assistance Program or the Construction Permit Unit for some guidance. Another option might be to simply skip a step, and come back later. Remember, there is no such thing as a perfect application, but by being as complete and organized as you can, you can speed the process.

STEP 1: Gather Materials

Start a file that contains this application package, and your vendor information.

STEP 2: Sketch Your Plant Layout / Develop Emission Inventory List

Identify all emission units and emission points. Sketch them on a Plant Layout. List a general description of the individual pieces of equipment. If your project is an expansion of an existing facility, sketch how the new process will relate to the existing processes.

List all substances that have the potential to be emitted into the atmosphere. Are any of these substances regulated pollutants (see pages 1 and 2)? Hazardous Air Pollutants (see page 21 of the Supplemental Information Package)?

STEP 3: Determine if your Project is Exempt

The regulation provides many exemptions (*10 CSR 10-6.060 (1)*). There is also a list of projects that the APCP has already determined to be exempt (see page 14 of the Supplemental Information Package). If your project is exempt, there is no need to apply for a permit unless you are interested in having the APCP confirm your determination.

STEP 4: Complete the Authority to Construct Form

STEP 5: Complete a Process Flow Diagram (Form 1.1)

Refer to your plant layout sketch developed in step 2.

STEP 6: Complete your formal Plant Layout Diagram (Form 1.3)

This is to be a scale drawing or survey.

STEP 7a: Complete a Form 2.0 for Each Emission Point

Refer to the Emission Inventory List you developed in Step 2.

STEP 7b: Complete Appropriate Worksheets

For some emission points you may need to complete the appropriate worksheet.

STEP 8a: Emissions Calculations (OPTIONAL)

Emissions calculations are optional, but most applicants will want to make these calculations. This information will help determine what regulation section your application will be reviewed under, and hence some of the requirements.

STEP 8b: Applicability Determination (OPTIONAL)

If you have calculated emissions, then you can use table 1 (page 26) to determine what type of review your project will be subject to. If this project is an addition at an existing installation you will need to determine your existing potential for each pollutant.

STEP 8c: Voluntary Limits

If you have determined the permit applicability for your project you may want to consider voluntary conditions. Voluntary conditions typically either reduce the requirements of the construction permit, or they establish your operating permit applicability (and the associated EIQ reporting requirements).

STEP 9: Requirements of Section (7), (8), and (9) Reviews (Major Reviews)

If you think that your project will be reviewed under these sections, you should call to set up a pre-application meeting. If your project is subject to major review there are additional requirements. These requirements are detailed in the regulation, but include the following:

<u>Requirement</u>	Section (7) Nonattainment	Section (8) Attainment	Section (9) HAPs
Refined Modeling (see APCP Technical Support Section for Modeling Protocol Requirements)	Yes (VOC is an exception)	Yes (VOC is an exception)	Screen Modeling Accepted, but Refined Modeling Likely
Emission Offsets	Yes	Increment Analysis	No
Emission Controls	LAER (Lowest Achievable Emission Rate) – see Construction Permit Unit for Guidance)	BACT (Best Available Control Technology) – see Construction Permit Unit for Guidance)	MACT (Maximum Achievable Control Technology) – see Construction Permit Unit for Guidance
Alternate Site Analysis	Yes	No	No

Visibility Impact on Class I areas	Yes	Yes	No
Public Participation (Public Hearings)	Yes	Yes	Yes
Pre & Post Construction Air Monitoring	Yes	Yes	Post Construction Monitoring Possible
Statement of Compliance (assuring that all installations owned by applicant are in compliance)	Yes	Yes	No

If your project is subject to major review, you will need detailed instructions and guidance concerning the required and additional submittals. Again, please contact the Construction Permit Unit for individual assistance.

STEP 10: Air Quality Analysis (OPTIONAL in most Circumstances)

If your criteria pollutant emission rates are greater than hourly *de minimis* OR if your hazardous air pollutant emission rates are greater than the emission thresholds (see page 21 of the Supplemental Information Package), then an air quality analysis will be performed. Some applicants want to know if their application is approvable prior to submission, and therefore perform their own screening analysis. Refer to page 28 of the Supplemental Information Package for guidance about how to perform this screening analysis, and how to report your findings.

If your project is subject to major review or if the project has the potential to emit more than 50 tons of particulate matter or sulfur dioxide you are required to submit a refined air quality analysis (modeling). For guidance on refined analysis submittals, please contact APCP's Technical Support Section.

STEP 11: Reorganize your Application

Make sure you get the proper signature, the application fee, and attach all supporting information (e.g. Cover letter, vendor info, basis for emission calculations, etc.).

STEP 12: Checklist

Use the checklists starting on page 30 to make sure your application is complete

STEP 13: Mail the Application

If you are in a hurry to begin construction, you may want to consider pursuing a preconstruction waiver (see page 12 of the Supplemental Information Package). Air Pollution Control Program,

P.O. Box 176, Jefferson City, Missouri, 65102-0176.

STEP 14: Keep in Touch / Respond to Requests for Additional Information

Keep all correspondence together, and answer reviewer requests promptly.

STEP 15: Review Draft Permit

When the reviewer completes technical review, you will be asked to review the draft permit. Make sure the conditions are acceptable.

STEP 14: Begin Construction

Once you receive a permit or a pre-construction waiver you may begin construction.

Table 1 **DETERMINING THE PERMIT SECTION APPLICABILITY FOR THE PROPOSED CONSTRUCTION**¹

Potential Emissions (P_c) of the Proposed Construction Project or the Modification to an Existing Installation	Installation's Existing Potential Emissions are Less Than or Equal to the <i>De minimis</i> Levels	Installation's Existing Potential Emissions are Greater than <i>De minimis</i> Levels but Less Than Major Source Levels	Installation's Existing Potential Emissions are Greater Than Major Source Levels
$P_c \leq De\ minimis$ Levels And $P_{ni} \leq De\ minimis$ Levels ²	NO PERMIT REQUIRED unless permit conditions are necessary and requested for an enforceable limit (PTE).	Section (5) [unless qualifies for exemption]	Section (5) [unless qualifies for exemption]
$P_c < De\ minimis$ Levels And $P_{ni} > De\ minimis$ Levels	NO PERMIT REQUIRED	Section (5)	Section (7) or Section (8) ³
$P_c > De\ minimis$ Levels And $P_c < \text{Major Source Levels}$	Section (6)	Section (6)	Section (7) or Section (8) ³
$P_c \geq \text{Major Source Levels}$	Section (7) or Section (8) ⁴	Section (7) or Section (8) ⁴	Section (7) or Section (8) ⁴

1. Section (5), *De Minimis Permits*; Section (6), *General Permit Requirements for Construction of Emissions Greater Than De minimis Levels*; Section (7), *Nonattainment Area Permits*; Section (8), *Attainment and Unclassified Area Permits*; Section (9), *Hazardous Air Pollutants Permits*; {NOTE: Section (9) permits are not listed above as they apply to construction projects where the Hazardous Air Pollutants (HAPs) emissions will exceed the major source levels for HAPs (i.e. 10.0/25.0 tons per year of any single/combination of HAP emissions, respectively)}.
2. P_{ni} = Potential emissions of the new construction/modification plus any net emission increase(s) from previous construction permit(s).
3. If the installation is located in a Nonattainment Area then a Section (7) would be required. A Section (8) permit would be required if the installation is located in an Attainment Area.

Instructions

- a) Find the installation's existing potential emissions, the potential emissions for the proposed construction project, and the net emissions increase for any past construction permits (if applicable).
- b) Determine which column to reference in the first row of Table 1 for the installation's existing potential emissions and find the matching row in the first column for the potential emissions/net emissions increase for the project.
- c) Read the intersection of the row and column determined in (b) to decide the appropriate APCP permit review section.

Forms Required with All Applications

Application for Authority to Construct (application).

This form includes the name and location of the installation, the owner and contact person information, a section for detailed description of the proposed project, and a statement where the applicant certifies the information in the application is accurate and complete.

Form 1.1, Process Flow Diagram.

This form outlines all the new or modified emission points in an installation on a flow chart. This chart must identify all processes/equipment, air pollution emission points and air pollution control devices covered by the application. If the application is for an addition to, modification or reconstruction of an existing installation, then only the new, modified or reconstructed processes must be shown on the form.

Form 1.2, Summary of Emission Points.

All the emission points covered by this application must be listed on this form, and the emission point description must be the same as that used on Form 1.1 and Form 2.0. Any worksheets used are listed by number, such as 2.3. If the application is for a change to an existing installation, list only the new/changed emission points as was done on Form 1.1. All emission points may be listed as long as new Emission Points are clearly identified.

Form 1.3, Plant Layout Diagram.

This is a scale drawing showing the location of all buildings and all emission points on your property with distances from your property boundaries and a North direction. A surveyor's or engineer's drawing may be substituted, as long as the same information is shown.

Form 2.0, Emission Point Information.

This form must be completed for each emission point in the proposed installation. Duplicate the form as many times as needed so that there is one for every emission point. The process or equipment is completely described on the form, including any stack or vent serving the process and any emission control equipment serving that point. Information about the estimated maximum actual throughput and the maximum hourly design rate for each process is used by the APCP permits engineer to calculate emissions and their impacts for comparison to ambient air quality standards.

Attachment A – Portable Equipment List.

Please complete this form if your application includes equipment that is designed and maintained to be movable. The principal concern here is that the equipment be uniquely identified for inspection purposes.

Worksheets

In addition to the required forms for all applications, supplemental forms (worksheets) are needed for particular processes, equipment, or class of business. Some of these forms are available only on request. If you have any organic liquid storage tank (or tanks) with a capacity of more than 500 gallons, contact the APCP for the worksheets needed to complete the application for your business.

Forms 2.0C, 2.0K, and 2.0S are specialty forms and are rarely used. Therefore, these have not been included with the standard application package. If you believe that any of these particular forms are required with your application, you can request them. Most commonly it is discovered that this information is needed after review has started, and the review engineer will simply request this as additional information. Form **2.0C** is used if you have too many control devices serving a process to list them on the Form 2.0. Use Form 2.0C to list devices beyond number two. Form **2.0K** is required for charcoal kilns. This form lists all the proposed kilns individually. NOTE: Form 1.3 must show all the concrete pads and the proposed kilns. Form **2.0S** is used if an emission point is served by more than one stack or vent. The first exit to ambient air is listed on Form 2.0 and all subsequent ones are described using 2.0S.

Form 2.0P is required if the installation is portable and is to be permitted for more than one site, such as a portable crushing plant or asphalt plant.

Form 2.1, Fuel Combustion Information. This form is required if you have combustion equipment exceeding 1.0 MMBTU/Hr input capacity. You will need a separate form for each type of fuel burned.

Form 2.3, Uncontrolled VOC Emissions Information. VOC stands for volatile organic compound. Most petroleum-derived solvents are VOCs. Operations where VOC emissions would be expected include surface coating (paint), degreasing, and many commercial printing operations.

Form 2.4, Petroleum Liquid Loading Information. For loading organic liquids into tank trucks, rail cars or barges, this worksheet is used to estimate emissions. If your installation has one or more of these operations, this worksheet will be required.

Form 2.5, Organic Liquid Storage Information. This form is not in the application package. If you have one or more organic liquid storage tanks with capacity of more than 500 gallons, you need to specially request Form 2.5. The form has sections for fixed-roof and floating-roof tanks.

Form 2.7, Haul Road Fugitive Emission Information. If you have vehicles hauling material on unpaved roads on your property, this worksheet is necessary for each segment of road where the type of truck or the amounts hauled are significantly different.

Form 2.8, Storage Pile Information. Where there is open storage of any material that can emit dust, such as crushed stone, coal or sawdust, this worksheet must be completed.

Form 2.T, Hazardous Air Pollutant Information. Many petroleum solvents are classified as hazardous air pollutants (HAPs). Often, the MSDS for the material will show toxics content. If any toxics are shown on the MSDS, this form must be completed. Check the list of chemicals contained in a material against the list of HAPs included in the Supplemental Information Package.

Incinerators. If you have or propose an incinerator, you are required by the APCP to complete an incinerator information package. Request this package from the APCP when you get the application package.

Portable Source Relocation Request. This form is used to request a relocation of previously permitted portable equipment. Relocation to a previously reviewed site requires a 7-day review period. Relocation to new site requires a 21-day review period. Equipment that is permitted as portable is only allowed to operate at a site for 24 consecutive months. The equipment must then be relocated. List all of your portable equipment on the “Attachment A – Portable Equipment List” form.

Attachment A – Portable Equipment List. You should complete this form anytime you wish to permit equipment that is portable, equipment that you intend to operate at one or more different sites in the future.

REQUIRED FORMS & INFORMATION CHECKLIST

For Section (5) *De Minimis* Permits, and Section (6), General Permit for Construction or Emission Increase Greater than *De minimis* Levels. Please mark the “Check” column to indicate the item(s) that were included in your permit application submittal.

Check

_____ Filing Fee – (\$100.00 per application)
Application for Authority to Construct Form (2 copies)

Information to be Completed on Authority to Construct Form

_____ Installation Name
 _____ Installation Street Address, Mailing Address, City & Zip Code
 _____ Location of Installation including County Name & CSTR Coordinates
 _____ Installation's Final Product/Principle Activity & SIC Code
 _____ Parent Company Name
 _____ Parent Company Mailing Address, City, State & ZIP Code
 _____ Contact Person's Name & Title
 _____ Contact Person's Mailing Address, City, State & Zip Code
 _____ Contact Person's Telephone Number, Fax Number and E-mail Address (if available)
 _____ Unified Construction/Operating Permit Review Indicated
 _____ Type of Application Indicated
 (i.e. New Installation, Modification/Addition to an Existing Installation or an
 Amendment to Existing Permit)
 _____ If Application is for an Amendment to Existing Permit, Permit No. Included
 _____ FIPS County ID Number
 _____ Plant ID Number (if available for existing installation, leave blank for new installation)
 _____ Projected Date to Commence Construction
 _____ Projected Date of Operation Startup
 _____ Signature, Typed/Printed Name & Title of Responsible Official
 _____ Date Application Signed
 _____ Telephone Number of Responsible Official
 _____ Project Description (on back of Application for Authority to Construct Form)

Emission Information Forms for Project (2 copies)

_____	Form 1.1	<i>Process Flow Diagram</i>
_____	Form 1.2	<i>Summary of Emission Points</i>
_____	Form 1.3	<i>Plant Layout Diagram</i> (including the proposed location/orientation of the equipment, the property boundaries and drawn to scale).

Form 2.0 Emission Point Information Required for Each Point (2 copies)

_____	Installation Name, FIPS County No., & Plant No. (if available)
_____	Point No., Point Description, Source Classification Code, Make/Model/Year of Equipment
_____	Stack No., Height, Diameter, Temperature & Velocity or Flowrate (if applicable)
_____	Expected Annual Throughput with Units, Maximum Hourly Design Rate in Units/Hr & Expected Operating Schedule (i.e. Hours/Day, Days/Week & Weeks/Year)
_____	Control Device No., Description & Destruction/Removal Efficiency (if applicable)
_____	Device No. & Description of Collection/Suppression System

ADDITIONAL WORKSHEETS CHECKLIST

For Section (5) *De Minimis* Permits, and Section (6), General Permit for Construction or Emission Increase Greater than *De minimis* Levels. Please mark the “Check” column to indicate the item(s) that were included in your permit application submittal.

Check	<u>Additional Emission Point Information (if necessary)</u>
<input type="checkbox"/>	Form 2.1, <i>Fuel Combustion Information</i>
<input type="checkbox"/>	Form 2.3, <i>Uncontrolled VOC Emissions Information</i>
<input type="checkbox"/>	Form 2.4, <i>Petroleum Liquid Loading Information</i>
<input type="checkbox"/>	Form 2.5, <i>Organic Liquid Storage</i>
<input type="checkbox"/>	Form 2.7, <i>Haul Road Fugitive Emissions Information</i>
<input type="checkbox"/>	Form 2.8, <i>Storage Pile Information</i>
<input type="checkbox"/>	Form 2.T, <i>Hazardous Air Pollutant Information (HAP)</i>
<input type="checkbox"/>	Form 3.0, <i>Comment Sheet</i>

Supplementary Information to be Submitted (if required)

<input type="checkbox"/>	Material Safety Data Sheet(s) for any Project Involving VOC/HAPs
<input type="checkbox"/>	Incinerator Information Request Forms for Any Project Involving an Incinerator (must include stack test data for the incinerator)
<input type="checkbox"/>	Stack Testing Report (if necessary)
<input type="checkbox"/>	Ambient Air Quality Impact Analysis (if necessary)
<input type="checkbox"/>	Ambient Monitoring Report (if necessary)
<input type="checkbox"/>	Information on Chemical Reactor Vessels

Additional Information Required for Section (7) Nonattainment Area Permits, Section, (8) Attainment and Unclassified Area Permits, or Section (9) Hazardous Air Pollutants Permits. Please mark the “Check” column to indicate the item(s) that were included in your permit application submittal.

Check	<u>Additional Information Required for Major Source Reviews</u>
<input type="checkbox"/>	Refined Modeling for Project
<input type="checkbox"/>	BACT Analysis
<input type="checkbox"/>	Pre-Construction Monitoring & APCP Approval of Monitor Location
<input type="checkbox"/>	Visibility Statement/Analysis for Class I Areas
<input type="checkbox"/>	Soil & Vegetation Impact Report/Statement

REQUIRED FORMS & INFORMATION CHECKLIST

For Section (4) Portable Equipment Permits. Please mark the “Check” column to indicate the item(s) that were included in your portable relocation submittal.

Check	<u><i>Information to be Completed on Portable Source Relocation Request Form</i></u>
_____	Name of Installation
_____	FIPS County-Plant ID Number (#) for Company/Installation
_____	Company/Installation Street & Mailing Address
_____	Company/Installation City, State & Zip Codes
_____	Parent Company Name, Mailing Address, City, State & ZIP Code
_____	Information for Current Site location including County-Plant ID#, County Name & CSTR Coordinates
_____	Information for New Site location including County-Plant ID# (if available), County Name & CSTR Coordinates
_____	Estimated Length of Time for Installation to be operated at this New Location (maximum of two years)
_____	Projected Date to Commence Construction & Projected Date to Commence Operation
_____	Property Owner’s Name, Street/Mailing Address, City, State & ZIP Code for New Site Location
_____	Is New Site Location Question for this Installation Answered?
_____	Is Other Air Contaminants Sources Operating Concurrently at this Site Question Answered?
_____	Is the List of Portable Equipment for the Installation Attached, including the Item Description, APCP Permit #, & Model/Serial # for Each Piece of Equipment?
_____	Signature, Typed/Printed Name & Title of Responsible Official
_____	Date Application Signed
_____	Telephone Number of Responsible Official
	<u><i>Additional Required Information (Required for new sites)</i></u>
_____	Form 1.3 <i>Plant Layout Diagram</i> (including the proposed location/orientation of the equipment, haul roads, storage piles, the property boundaries and drawn to scale).
_____	Form 2.7 <i>Haul Road Fugitive Emission Information</i> for Each Haul Road
_____	Form 2.8 <i>Storage Pile Information</i> for Each Open Storage Pile
_____	Form 2.1 <i>Fuel Combustion Information</i> for Combustion Sources (if necessary)

INSTRUCTIONS

APPLICATION FOR AUTHORITY TO CONSTRUCT

APPLICATION FOR AUTHORITY TO CONSTRUCT is required with all applications.

- 1.) **Installation Name:** Enter the name of the installation covered by this application.
- 2.) **Installation Street Address:** Enter the street address of the physical location of the installation.
- 3.) **Installation Mailing Address:** Enter the mailing address of the installation if different from the Street Address.
- 4.) **Installation City, Zip Code:** Enter the City and Zip Code of the physical location of the installation.
- 5.) **County:** Enter the county in which the installation is located.
- 6.) **Section, Township, Range:** Enter the appropriate information on the Section, Township and Range in which the installation is located. This information is available through your County Assessor.
- 7.) **Final Product/Principle Activity:** Enter the general product manufactured, the material handled by your installation or the principal activity that is performed at this installation.
- 8.) **SIC Code:** Enter the Standard Industrial Classification (SIC) Code for your installation. Refer to the Glossary or Supplemental Information Package for a more detailed description of SIC Codes.
- 9.) **Parent Company:** Complete this block if this installation is totally or partially owned by another company.
- 10.) **Parent Company Mailing Address:** Complete this block if this installation is totally or partially owned by another company.
- 11.) **Parent Company City, State, Zip Code:** Complete these blocks if this installation is totally or partially owned by another company.
- 12.) **Contact Person, Contact Person's Title:** Enter the name and title of the person who is most familiar with the operations of the plant and who can answer any questions regarding information about the installation.
- 13.) **Contact Person's Mailing Address:** Enter the mailing address for the Contact Person.

- 14.) **Contact Person's City, State, Zip Code:** Enter the City and Zip Code pertaining to the Contact Person's Mailing Address.
- 15.) **Contact Person's Telephone Number:** Enter the Contact Person's telephone number.
- 16.) **Contact Person's Fax Number:** Enter the Contact Person's fax number (if applicable).
- 17.) **Contact Person's Email Address:** Enter the Contact Person's email address (if applicable).
- 18.) **Unified Review:** Mark the appropriate box to indicate if you wish to have a Unified Review performed on this application. Unified Review means that you are submitting your Operating Permit Application simultaneously with your Construction Permit Application.
- 19.) **This Application is For:** Mark the appropriate box describing the nature of this project. If this project is an amendment to an existing permit, mark the appropriate box and enter the appropriate permit number.
- 20.) **FIPS County ID Number:** Enter the FIPS County ID Number. See page 55 of the Supplemental Information Package for list of the Federal Information Procedure System (FIPS) County Codes.
- 21.) **Plant ID Number:** Enter the Plant ID number if this is an existing installation. If this is a new installation, leave this blank.
- 22.) **Projected Date to Commence Construction:** Enter the date you desire to begin construction of the equipment or processes listed in this application.
- 23.) **Projected Date of Operation Startup:** Enter the date you desire to begin operation of the equipment or processes listed in this application.
- 24.) **Signature of Responsible Official:** Enter the signature of the Responsible Official. For a more detailed description of a Responsible Official, refer to the Glossary. This blank must be completed or your application will be considered incomplete.
- 25.) **Date:** Enter the date that the Signature of the Responsible Official was obtained for item 24.
- 26.) **Type or Print Name of Responsible Official:** Type or print the name of the Responsible Official signing in item 24.
- 27.) **Responsible Official's Telephone Number:** Enter the telephone number where the Responsible Official may be contacted who signed in item 24.

- 28.) **Official Title of Responsible Official:** Enter the official title of the Responsible Official from item 24.

ON BACK

- 29.) **Project Description and Narrative:** Enter a description and/or narrative of the project included with this application. The process description should carry the reader smoothly through the process with emphasis on where emissions are generated, why the emissions must be generated, what air pollution controls are used (including process design features that minimize emissions), and where emissions enter the atmosphere. Each step in the process should be discussed in detail and should refer to the process flow diagram on Form 1.1. When applicable, cycle times, reaction times, temperatures, pressures, material flow rates, material composition, and production rates should be discussed. Generalities such as “a small amount,” “sometimes,” “occasionally opened,” etc., should be avoided. All discussion should consider the parameters that will result in the maximum emissions for each air contaminant. If the application is for an addition to an existing installation, the process description should inform the reader how the new process fits into the existing process. If you need more than one page, feel free to reproduce as many pages as you need, or simply provide this information as part of your cover letter.

This is also the place you can use to volunteer emission limits or emission controls. Construction permits often include voluntary emission limitations 1.) to possibly avoid review under more stringent sections of the construction permit rule, 2.) to ensure that air quality standards are not violated, 3.) to keep your operating permit review as simple as possible, and 4.) to limit your reporting requirements under the Emissions Inventory Questionnaire (EIQ) program. All limits must be enforceable in a practical manner, and typically even voluntary limits will require some degree of recordkeeping.

In addition to the basic process description and to volunteer limits, this blank is also an opportunity for the applicant to “help” the permit reviewer establish some basic facts. The following additional information is not required, but will help the reviewer complete the review more quickly:

- Will Hazardous Air Pollutants (HAPS) be emitted from the proposed project? (See the Supplemental Information Package page 21 for a list of HAPS)
- Do any federal New Source Performance Standards (NSPS) apply to this proposed project? (See the Supplemental Information Package page 52 for a list of NSPS’s -- 40 CFR Part 60)
- Do any Maximum Achievable Control Technology (MACT) or National Emission Standards for Hazardous Air Pollutants (NESHAPS) apply to this proposed project? (See the Supplemental Information Package page 42 for a list of MACTs – 40 CFR Part 63 and page 50 for a list of NESHAPS – 40 CFR Part 61)

- Under what section of the construction permit rule 10 CSR 10-6.060 should this application be reviewed, and why?
- Is this proposed project to be located in an attainment or nonattainment area for what criteria pollutant?
- Is this facility on the List of Named Installations (See the Supplemental Information Package page 41 for this list or refer to 10 CSR 10-6.020(3)(B)).
- Was an air quality analysis provided with this application, and what were the results?

INSTRUCTIONS

FORM 1.1, Process Flow Diagram for Facility According to Proposed Application

Form 1.1 is required with all applications.

- (a) **Installation Name:** Enter the name of the installation covered by this application.
- (b) **FIPS County No.:** For an existing installation, enter the number from the EIQ. For a new installation, refer to the FIPS table on page 55 of the Supplemental Information Package.
- (c) **Plant No.:** For an existing installation, enter the number from the EIQ. For a new installation, leave blank. APCP will assign a number.

For a new installation, show the entire installation.

For an addition to an existing installation, show only the new processes, new equipment, and/or new emission points. Begin the identification numbering where the existing EIQ emissions point numbers leave off.

If the application is for a modification or an addition to an existing emission point or unit, show the upstream and downstream point(s) or equipment that this modification will affect.

INSTRUCTIONS

FORM 1.2, Summary of Emission Points Affected by this Application

Form 1.2 is required with all applications.

Complete **(a) Installation Name**, **(b) FIPS County Number** and **(c) Plant Number**. See Form 1.1 for details on these entries.

- (d) **Point No.:** Enter a number to uniquely identify this emission point at this installation. Use the same number used on the flow diagram, Form 1.1.
- (e) **Point Description:** Enter a description to uniquely identify the process or equipment associated with this emission point.
- (f) **Reference Worksheet(s):** Enter additional worksheets (if any) used in addition to Form 2.0 for that emission point. [i.e. Form 2.3, 2.7, etc.]

INSTRUCTIONS

FORM 1.3, Plant Layout Diagram

Form 1.3 is required with all applications.

Complete **(a) Installation Name**, **(b) FIPS County Number** and **(c) Plant Number**. See Form 1.1 for details on these entries.

For small installations, a scale diagram may be done on Form 1.3 itself. A surveyor's or engineer's diagram can be substituted for Form 1.3. The diagram must be drawn to scale [for example, 1" = 100'] and the scale **must** be included on the diagram. Your County Assessor has maps of the county that you can use for your Form 1.3 substitute. Aerial photos may be used but do not photocopy well, so you will need two originals for your plant layout.

Your property lines must be clearly identified [a highlighter is good for this]. Be sure to highlight both copies submitted with the application.

All buildings must be correctly located on the diagram with length, width and height shown for each building. If there are stacks or vents with pollutant emissions, the locations and heights above the ground must be on the diagram. If you have any haul roads, paved and/or unpaved, draw them in. The length to show on the diagram is the length inside your property. Public roads on your property, even if unpaved, must be shown. Open storage piles must be shown. If a fence or fenceline is located on your property, show the fence on the diagram.

INSTRUCTIONS

Form 2.0 Emission Point Information

Form 2.0 is required with all applications.

This form must be completed for each emission point shown on Form 1.1 and Form 1.2. A separate Form 2.0 must be completed for each fuel type used at each process or emission point.

Complete **(a) Installation Name**, **(b) FIPS County Number** and **(c) Plant Number**. See Form 1.1 Instructions for details on these entries.

POINT IDENTIFICATION

- (d) **Point Number:** This identification number must match the emission point identification number listed on Forms 1.1 and 1.2.
- (e) **Point Description:** This description should uniquely identify the process associated with this emission point. It should be the same as used on Form 1.2.
- (f) **Source Classification Code (SCC):** The Source Classification Code is an eight-digit number associated with a unique process from which air pollutants are emitted. Specific SCCs can be found using AP-42 or FIRE. A listing of various Internet and Web-based resources is located in the Supplemental Information Package (page 56). If you cannot locate a SCC specific to your process, use a SCC closely related to the process.
- (g) **Make:** Enter the make of the main equipment used at this point.
- (h) **Model:** Enter the manufacturer's model number of the main equipment to be used at this point.
- (i) **Year:** Enter the year of manufacture of the main equipment to be used at this point. For reconstructed equipment subject to federal New Source Performance Standards (NSPS) this is the date that the equipment was reconstructed.

STACK/VENT PARAMETERS

Leave this section blank for emission points that do not vent their emissions through a stack.

- (j) **Stack Number:** Enter an identification number for the stack that will uniquely identify this stack at your installation. If you have more than one stack, number them sequentially.

- (k) **Height (ft):** Enter the vertical distance, in feet, between ground level and the point of exhaust into the ambient air.
- (l) **Diameter (ft):** Enter the inside diameter, in feet, of the top of a circular stack. For non-circular stack exits, use an equivalent diameter calculated from the cross-sectional area. The equivalent diameter, d , equals the square root of the product of 1.128 and the cross-sectional area, A , denoted as follows: $d = (1.128 * A)^{1/2}$.
- (m) **Temperature (F):** Enter the exhaust temperature, in degrees Fahrenheit, for this stack. If the exhaust is discharged at ambient temperatures, enter 77 degrees F.
- (n) **Velocity (ft/min):** Enter the exit velocity, in feet per minute, of the gas leaving the stack. This can be calculated by dividing the actual flow rate out the stack, usually in cubic feet per minute, by the cross-sectional area of the stack.
- (o) **Flow Rate (cubic ft/min):** Enter the exhaust gas volume from the stack in actual cubic feet per minute.

OPERATING RATE/SCHEDULE

- (p) **Expected Annual Throughput:** Estimate the amount of material that will be used, processed or produced in this process associated with this emission point during a calendar year.
- (q) **Units:** Enter the units associated with the Expected Annual Throughput (p). [For example, tons, MMCF, etc.]
- (r) **Maximum Hourly Design Rate:** Enter the maximum hourly operating rate possible for the equipment associated with this emission point. For combustion equipment, use Form 2.1. If the hourly throughput will be limited by upstream or downstream constraints (bottlenecks), you are allowed to reduce the rated capacity of the equipment/process to account for these constraints. **Use Form 3.0 to provide an explanation with your application for these bottlenecks.**
- (s) **Units/Hr:** Maximum hourly design rate units should be the same units as the annual throughput units (q) on a per hour basis. [For example, tons/hour, MMCF/hour, etc.]
- (t) **Hours/Day:** Enter the normal number of hours per day that the equipment or process associated with this emission point is in operation.

Days/Week: Enter the normal number of days per week that the equipment or process associated with this emission point is in operation.

Weeks/Year: Enter the normal number of weeks per year that the equipment or process associated with this emission point is in operation.

AIR POLLUTION CONTROL EQUIPMENT

If there are more than three control devices operating at an emission point, use Form 2.0C to describe the additional devices.

- (u) **Device Number:** Assign a number to uniquely identify the air pollution control device. The device number should be the same as shown on Form 1.1 for this equipment. Control devices must be numbered sequentially through the installation, as mentioned on the instructions for Form 1.1.
- (v) **Control Device Description:** Describe the control equipment used to reduce or remove air contaminants.
- (w) **Destruction/Removal Efficiency:** Enter the destruction/removal or suppression efficiency of the control device for the appropriate pollutants.
- (x) **Collection/Suppression System Description:** Describe how the pollutants are collected/suppressed and routed through the control device(s) for this process. [For example, hoods, vacuum systems, spray bars, etc.]
- (y) **OPTIONAL CALCULATION SECTION: This section is not required to be filled out.** This section is intended only for installations that wish to determine their potential emissions. To determine potential emissions, in the appropriate columns, enter: the applicable pollutants; emission factors; emission factor units [the emission factor units should be in pounds of pollutant per unit of material listed in the Unit blank, (s)]; and overall control efficiency as it applies to that pollutant. To determine a specific pollutant's pounds per hour emission rate, multiply the maximum hourly design rate [amount entered in blank (r.)] by the emission factor for that pollutant. Then, if there is a control system, multiply by 1.0 minus the overall control efficiency divided by 100, if there is a control system. To determine annual Potential Emissions, multiple the hourly emission rate you just calculated by 4.38 to get tons of a pollutant emitted per year. This will be the potential emission for this pollutant from this point after controls.

INSTRUCTIONS

Form 2.1 Fuel Combustion Information

This form is required for on-site combustion equipment. The Maximum Hourly Design Rate (MHDR) of each unit, no matter what capacity, must be reported. Small combustion equipment, equipment with a maximum heat input of less than 1.0 Million BTU's per hour is exempt from construction permitting. A separate Form 2.0 and 2.1 should be completed for each type of fuel used with the combustion equipment at this emission point. If using an incinerator, you must fill out an Incinerator Information Request Packet. Contact the APCP for the appropriate incinerator forms.

Complete (a) **Installation Name**, (b) **FIPS County Number** and (c) **Plant Number**. See Form 1.1 for details on these entries.

COMBUSTION EQUIPMENT IDENTIFICATION

- (d) **Point Number:** Enter the identification number listed on Form 2.0 for this point.
- (e) **SCC:** Enter the identification number listed on Form 2.0 for this point.
- (f) **Equipment Description (Make/Model):** Enter a description of the combustion equipment associated with this emission point. [For example, boiler, bake oven, annealing furnace, etc.]
- (g) **Year Put In Service:** Enter the year the combustion equipment was constructed, modified or remanufactured.
- (h) **Maximum Design Rate (MMBTU/hr):** Enter the maximum hourly heat input capacity for each piece of equipment. This must be in units of millions of BTU per hour.

FUEL INFORMATION

- (i) **Fuel Type:** Check only one box for the type of combustion equipment being used. If more than one fuel will be used for this piece of equipment, a separate Form 2.0 and Form 2.1 must be filled out for each different fuel type. **NOTE:** If you specify *Refuse* or *Trade Wastes* as your fuel type, you must fill out an Incinerator Information Request Packet.
- (j) **Fuel:** Enter the fuel used with the combustion equipment for this emission point. Coal users must list each grade of coal used when different grades are burned.
- (k) **Annual Throughput:** Enter the amount of fuel to be combusted during a year using the combustion equipment at this emission point.

- (l) **Units:** Enter the same units listed under (q) on Form 2.0 for this emission point fuel type. [For example, MMCF natural gas, MGal fuel oil, etc.]

NOTE TO NATURAL GAS USERS: *MCF is thousand cubic feet, MMCF is million cubic feet.*

- (m) **% Sulfur by Weight:** This entry is required **ONLY** if there is a Sulfur Flag (S) accompanying the SCC used on this point. For example, there are no flags for natural gas; do not complete this entry for that fuel. However, since there are flags for propane and coal, complete this entry for those fuels.

Enter the percentage of sulfur by weight in the fuel when the facility **receives** it. The percentage of sulfur in coal, oil and LPG/propane can be obtained from your supplier(s). The default value for the sulfur content of propane is 0.00002%. You should request the average sulfur content from your supplier(s).

- (n) **% Ash by Weight:** This entry is required **ONLY** if there is an Ash Flag (A) accompanying the SCC used on this point. For example, there are no flags for natural gas; do not complete this entry for that fuel. However, since there are flags for oil and coal, complete this entry for those fuels.

Enter the percentage of ash by weight in the fuel when the facility **receives** it. You should request the average sulfur content from your supplier(s).

INSTRUCTIONS

Form 2.3 Uncontrolled VOC Emissions Information

Form 2.0 and Form 2.3 must be completed for each emission point that emits VOCs from your installation [for example, degreasing, spray painting, etc.]. Each different VOC emitting process will have a separate SCC and therefore separate Form 2.3.

Include a Material Safety Data Sheet (MSDS) for each of the VOC containing materials used at your installation. Be sure to check the MSDS for hazardous air pollutants (HAPs) using the listings found in the back of the instructions. If the material that you are using contains HAPs, you must complete **Form 2.T** Hazardous Air Pollutant Information for those points where the HAPs are being emitted.

Complete (a) **Installation Name**, (b) **FIPS County Number** and (c) **Plant Number**. See Form 1.1 for details on these entries.

TOTAL ANNUAL THROUGHPUT

- (d) **Point Number:** Enter the identification number listed on Form 2.0 for this point.
- (e) **SCC:** Enter the identification number listed on Form 2.0 for this point.
- (f) **Application Method:** Describe the application method of the operation or process that is producing VOC emissions for this emission point [for example, spray, roller, dip, etc.].
- (g) **Material Type:** Enter the material being used. Examples include primers, paints, inks, thinners, solvents, etc.
- (h) **Application Rate (gallons/Hr.):** Enter the estimated maximum amount of the specific material type to be used at this emission point in gallons per hour. If manufacturers design rate is unknown, please use the comment section below to explain the physical limitation. Number of employees working cannot be used as a limitation. It may help to estimate the application rate during an 8-hour shift, then divide by eight.
- (i) **% By Weight of VOC in Material:** Enter the percentage of VOC, by weight, in the material. This can be found on the MSDS provided by your supplier(s) for this specific material.
- (j) **Density (lbs/gal):** Enter the material density as found on the MSDS provided by your supplier(s) for this specific material. If the specific gravity is given on the MSDS, multiply the specific gravity by 8.34 to obtain the density.

- (k) **Lbs. Of VOC per Unit:** Enter the pounds of VOC per unit of material as found on the MSDS provided by your supplier(s) for this specific material. If pounds of VOC per Unit are not known, they can be found by multiplying the percent VOC by weight in the material (i) by the density of that material (j).

- (l) **TOTAL Annual Throughput (SCC Units):** Enter the total of the Annual Throughputs entered in column (h.). This number should be entered in box (p) on Form 2.0 for Expected Annual Throughput. NOTE: This figure must be expressed in the same units as the SCC emission factor units used with the specific process for this emission point.

INSTRUCTIONS

Form 2.5 Organic Liquid Storage

This form is **required** if you have either a fixed roof or a floating roof organic liquid storage tank with a capacity greater than 500 gallons. If you are installing a tank with a capacity of less than 500 gallons, you are not required to fill out this form. This form is comprised of two different sections. **Section A.** is for Fixed Roof Tanks. **Section B.** is for Floating Roof tanks. Fill out the section that applies to you.

FOR BOTH FIXED ROOF AND FLOATING ROOF TANKS

Complete (a) **Installation Name**, (b) **FIPS County Number** and (c) **Plant Number**. See Form 1.1 for details on these entries.

Section A. Fixed Roof Tanks

Tank Information

- (d) **Point (Tank Identification) No.:** Enter a unique identification number for each organic liquid storage tank. This identification number must be the same as the one entered on Form 2.0.
- (e) **Capacity (in thousands of gallons):** Enter the tank capacity in thousands of gallons. [for example, 10,000 gallon tank is entered as 10]
- (f) **Diameter (ft):** Enter the diameter of the storage tank in feet.
- (g) **Height (ft):** Enter the height of a vertical or circular tank in feet. If you have a horizontal tank, leave this blank and proceed to (h).
- (h) **Length (ft):** Enter the length of a horizontal tank in feet. If you have a vertical or circular tank, leave this blank and fill in (g).
- (i) **Color (Shell):** Enter the color of the tank shell.
- (j) **Color (Roof):** Enter the color of the tank roof.
- (k) **Type of Roof:** Mark the appropriate box that best describes this specific tank.
- (l) **Year Placed In Service:** Enter the year the tank was constructed, reconstructed or modified.
- (m) **Average Liquid Height (ft):** Enter the average height of the liquid in feet inside this storage tank.

- (n) **Roof Height (ft):** Enter the height of the tank, in feet, that is above the top of the tank shell.
- (o) **Vent Pressure Setting:** Enter the breather vent pressure setting in terms of pounds per square inch gauge (psig). If specific information on this is not known, enter a default of 0.03 psig.
- (p) **Vent Vacuum Setting:** Enter the breather vent vacuum setting in terms of pounds per square inch gauge (psig). If specific information on this is not known, enter a default of -0.03 psig.
- (q) **Throughput (in thousands of gallons per year):** Enter the expected annual amount of liquid to be stored in this specific tank in thousands of gallons. This number should be the same as was entered in box (p) on Form 2.0 for this emission point.

Chemical Information

- (r) **Chemical:** Enter the name of the liquid to be stored in this specific tank. If more than one liquid will be stored in the tank, a separate Form 2.5 must be filled out for each liquid. If a mixture of liquids will be stored in the tank, documentation must be provided for the multiple component mixture.
- (s) **CAS Number:** Enter the Chemical Abstract Service (CAS) registry number for the chemical stored in this specific tank.
- (t) **Vapor Molecular Weight:** Enter the molecular weight of the liquid, in pounds per pound-mole, to be stored in this specific tank. If more than one liquid will be stored in the tank, a separate Form 2.5 must be filled out for each liquid. If a mixture of liquids will be stored in the tank, documentation must be provided for the multiple component mixture.
- (u) **Average Liquid Surface Temperature (F):** Enter the daily average surface temperature of the liquid stored in the tank in degrees Fahrenheit.
- (v) **Vapor Pressure at Average Liquid Surface Temperature (psia):** Enter the vapor pressure, in pounds per square inch absolute, of the liquid being stored in this specific storage tank.

Section B. Floating Roof Tanks

Tank Information

- (d) **Point (Tank Identification) No.:** Enter a unique identification number for each organic liquid storage tank. This identification number must be the same as the one entered on Form 2.0.
- (e) **Year Placed In Service:** Enter the year the tank was constructed, reconstructed or modified.
- (f) **Capacity (in thousands of gallons):** Enter the tank capacity in thousands of gallons. [for example, 10,000 gallon tank is entered as 10]
- (g) **Diameter (ft):** Enter the diameter of the storage tank in feet.
- (h) **Length of Seam (ft):** Enter the length of the seam, in feet, of this tank.
- (i) **Number of Columns:** Enter the number of columns for this tank.
- (j) **Effective Column Diameter (ft):** Enter the effective diameter, in feet, of the columns in the tank.
- (k) **Type of Construction:** Mark the appropriate box that best describes this specific tank.
- (l) **Type of Roof:** Mark the appropriate box that best describes this specific tank.
- (m) **Primary Seal:** Mark the appropriate box that best describes this specific tank.
- (n) **Secondary Seal:** Mark the appropriate box that best describes this specific tank.
- (o) **Area of Deck (sq. ft):** Enter the area of the deck in square feet.
- (p) **Deck:** Mark the appropriate box that best describes this specific tank.
- (q) **Shell Condition:** Mark the appropriate box that best describes this specific tank.
- (r) **Throughput (in thousands of gallons per year):** Enter the expected annual amount of liquid to be stored in this specific tank in thousands of gallons. This number should be the same as was entered in box (p) on Form 2.0 for this emission point.

Chemical Information

- (s) **Chemical:** Enter the name of the liquid to be stored in this specific tank. If more than one liquid will be stored in the tank, a separate Form 2.5 must be filled out for each liquid. If a mixture of liquids will be stored in the tank, documentation must be provided for the multiple component mixture.
- (t) **CAS Number:** Enter the Chemical Abstract Service (CAS) registry number for the chemical stored in this specific tank.
- (u) **Vapor Molecular Weight:** Enter the molecular weight of the liquid, in pounds per pound-mole, to be stored in this specific tank. If more than one liquid will be stored in the tank, a separate Form 2.5 must be filled out for each liquid. If a mixture of liquids will be stored in the tank, documentation must be provided for the multiple component mixture.
- (v) **Liquid Density (lb/gal):** Enter the density of the liquid, in pounds per gallon, to be stored in this specific tank. If the specific gravity is given, multiply the specific gravity by 8.34 to obtain the density.
- (w) **Vapor Pressure at Storage Temperature (psia):** Enter the vapor pressure, in pounds per square inch absolute, of the liquid being stored in this specific storage tank.

INSTRUCTIONS

Form 2.7 Haul Road Fugitive Emission Information

This form is **required** for any facility with a haul road, **paved or unpaved**.

Use a separate Form 2.7 for each haul road at your facility.

Complete **(a) Installation Name**, **(b) FIPS County Number** and **(c) Plant Number**. See Form 1.1 for details on these entries.

Haul Road Information

- (d) **Point Number**: Enter the identification number listed on Form 2.0 for this point.
- (e) **SCC**: Enter the identification number listed on Form 2.0 for this point (this entry is optional).
- (f) **Surface Material of Road**: Describe the road surface material. [i.e. crushed rock, dirt, concrete, etc.]
- (g) **Length of Road (miles)**: Enter the length of the haul road, to the nearest one-tenth mile, that is within your property lines.
- (h) **Silt Content (%)**: Enter the silt content of the road surface. If unknown, use a default value of 9.6%. Silt contents can be measured or found in AP-42, Section 13.2.2.
- (i) **Type of Dust Control/Control Efficiency**: Mark the appropriate box that best describes this specific tank. Enter the dust control method and appropriate efficiency, if applicable, in the corresponding boxes on Form 2.0 for this emission point.

Haul Truck Information

- (j) **Unloaded Truck Weight (tons)**: Enter the empty weight, in tons, of the primary type of truck to be used on this specific haul road.
- (k) **Average Weight of Material per Load (tons)**: Enter the average weight, in tons, of the amount of material to be hauled by this type of truck on this specific haul road.
- (l) **Average Loaded Truck Weight (tons)**: Enter the empty weight of the primary type of truck (j) plus the average weight of the amount of material to be hauled by this type of truck (k) on this specific haul road.

- (m) **Number of Wheels:** Enter the number of wheels on the primary type of truck to be used on this specific haul road.
- (n) **Average Truck Speed (mph):** Enter the average speed, in miles per hour, of the primary type of truck to be used on this specific haul road.
- (o) **Type of Material(s) Hauled:** Enter the type of material that will normally be hauled on this specific haul road. [i.e. limestone, gravel, concrete, etc.].
- (p) **Annual Amount Hauled (tons):** Enter the expected annual amount of material to be hauled, in tons, on this specific haul road. This number should be the same as was entered in box (p) on Form 2.0 for this emission point.
- (q) **Maximum Hourly Amount Hauled (tons):** Enter the maximum theoretical amount of material, in tons, that the primary truck could haul per hour on this specific haul road.

INSTRUCTIONS

Form 2.8 Storage Pile Information

This form is **required** for any facility with any open storage piles that are included in this application.

Use a separate Form 2.8 for each storage pile at your facility. You may group and report separate storage piles as one emission point if they store the same type of material.

Complete **(a) Installation Name**, **(b) FIPS County Number** and **(c) Plant Number**. See Form 1.1 for details on these entries.

Storage Pile Information

- (d) **Point Number**: Enter the identification number listed on Form 2.0 for this point.
- (e) **SCC**: Enter the identification number listed on Form 2.0 for this point.
- (f) **Type of Material Stored**: Describe the type of material stored in this specific storage pile. [i.e. crushed rock, gravel, sand, etc.]
- (g) **Moisture Content (%)**: Enter the moisture content of the storage pile. If unknown, use a default value of 0.7%. Moisture contents can be measured or found in AP-42, Section 13.2.4.
- (h) **Area of Storage Pile (acres)**: Enter the area, in acres, that this specific storage pile will cover.
- (i) **Storage Duration (days)**: Enter the average number of days that the material will remain in this specific storage pile. If unknown, use a default value of 76 days.
- (j) **Silt Content (%)**: Enter the silt content of the storage pile. If unknown, use a default value of 1.6%. Silt contents can be measured or found in AP-42, Section 13.2.4.
- (k) **Annual Amount Stored (tons)**: Enter the expected annual amount of material to be stored, in tons, in this specific storage pile. This number should be the same as was entered in box (p) on Form 2.0 for this emission point.
- (l) **Maximum Hourly Amount Stored (tons)**: Enter the maximum theoretical amount of material, in tons, that this specific storage pile could accept per hour (for quarry and asphalt plants – enter the maximum hourly production of the primary crusher in units of tons).

- (m) **Raw Material Loading Method:** Mark the appropriate box that best describes the loading in of material for this specific storage pile.
- (n) **Raw Material Unloading Method:** Mark the appropriate box that best describes the loading out of material for this specific storage pile.

INSTRUCTIONS

Form 2.T Hazardous Air Pollutant Information

This form should be completed to report the emission of any Hazardous Air Pollutant (HAP) regulated under Section 112(b) of the 1990 Clean Air Act Amendments. Use this form to list specific HAPs being emitted from a single emission point. Please refer to the HAP listings in the Supplemental Information Package (page 21) to determine if you are emitting any HAPs from your facility.

The list of HAPs in the Supplemental Information Package (page 21) also provides the CAS numbers for each HAP and an indication of whether the chemical is considered a VOC or PM₁₀ for reporting purposes. The Air Pollution Control Program (APCP) has a listing of chemical trade names and synonyms associated with different HAPs in case you are unsure as to whether or not a chemical is considered a HAP. If you have a question about a particular material and whether or not it is a HAP, call the APCP at (573) 751-4817.

Each row in Form 2.T should be used to enter the information about a single HAP at one specific emission point.

Complete (a) **Installation Name**, (b) **FIPS County Number** and (c) **Plant Number**. See Form 1.1 for details on these entries.

- (d) **Point Number:** Enter the identification number listed on Form 2.0 for this point.
- (e) **SCC:** Enter the identification number listed on Form 2.0 for this point.
- (f) **HAP Chemical:** Enter the common chemical name for a specific HAP being emitted.
- (g) **CAS Number:** Enter the Chemical Abstract Service (CAS) registry number for the specific HAP being emitted. CAS numbers for HAPs can be found in the Supplemental Information Package.
- (h) **Amount Used or Expected to be Handled:** Enter the amount of the HAP that is being used at this emission point. Calculate this amount by doing a mass balance on the total amount of material containing HAPs used at this point and the HAP content as reported on the MSDS for that material.
- (i) **Units:** Enter the units associated with the Amount Used or Handled of the HAP (h), typically reported in pounds per year.

INSTRUCTIONS

Form 3.0 Comment Sheet

Use this sheet if you have any comments that you would like to add about a specific emission point, process or other aspect of your permit application.

Complete **(a) Installation Name**, **(b) FIPS County Number** and **(c) Plant Number**. See Form 1.1 for details on these entries.

- (d) **Emission Point No.:** This identification number must match the emission point identification number listed on Forms 1.1 and 1.2.